IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Ueda et al.	Art Unit	: 4171
Serial No.	: 10/565,324	Examiner	: Darcy D. LaClair
Filed	: January 20, 2006	Conf. No.	: 3964
Title	: Water-absorbent Resin Composition And Method For Producing Thereof, And Absorbent Material And Absorbent Product Using Thereof		

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF YASUHISA NAKASHIMA UNDER 37 C.F.R. § 1.132

I, Yasuhisa Nakashima, hereby declare that:

1. I am an inventor of the subject matter described and claimed in the above-identified application, which relates to a water absorbent resin composition, a method for producing the water absorbent resin composition, and a material and product using the water absorbing resin composition.

2. I understand that an Office Action dated May 21, 2008, is outstanding in the present application.

3. I or others followed the experimental procedure described in Example 1 of Anderson et al., US Patent 4,954,562. See column 15, line 56 through column 16, line 54, reproduced below:

EXAMPLE 1

The following ingredients are combined, wherein percents are weight percents based on the total weight of the monomer mixture formed, unless otherwise noted, 48.01% acrylic acid and 2% titanium dioxide, first are thoroughly admixed, then 30.66% of aqueous potassium hydroxide (53.2% KOH) and 11.82% potassium carbonate, serving as neutralizing agents, are added. Thereafter 0.02% of N,N-methylenebisacrylamide, as a polyvinyl monomer, is added to prepare an aqueous mixture of potassium acrylate, having a neutralization degree of about 80%, and titanium dioxide.

The combined monomer-metal oxide concentration is about 70 wt. %.

The aqueous mixture is stirred and is maintained at 70° C., and with the mixture is admixed 0.36% of 2,2'-azobis-(2-amidino-propane)dihydrochloride and 0.20% of ammonium persulfate both in an aqueous solution. The final solution is as follows:

CHEMICALS	
Acrylic Acid	48.01%
Titanium Dioxide	2.00%
Potassium Hydroxide	16.31%
Potassium Carbonate	11.82%
N,N-Methylenebisacrylamide	0.02%
Azo Polymerization Initiators	0.36%
Ammonium Persulfate	0.20%
Water	21.28%
TOTAL	100.00

The stirred mixture is poured onto a traveling endless belt and spread thereover in the form of a layer about 10 mm (millimeters) in thickness. The reaction then is initiated by adding 0.14% by weight of an aqueous solution containing 33% by wt. of a 50/50 mixture of sodium thiosulfate and ammonium persulfate redox initiators to the monomer/metal oxide mixture. About 30 seconds thereafter, the mixture starts to polymerize, and the reaction is completed in about 1 minute. The maximum temperature of the mixture during the reaction is about 120° C.

The polymer is allowed to complete curing for about 30 minutes at ambient temperature to give a dry solid strip of potassium polyacrylate incorporating the titanium dioxide, and having a water content of 1% and a residual monomer concentration of less than 1000 ppm. The solid strip of polymer is pulverized into a powder, then surface treated by evenly spraying a methanol solution containing from about 5% by weight of a polyquaternary amine over the powder until it is surface treated with from about 0.6% of the polyquaternary amine by dry weight. A separate blending operation, or the packaging operation, serves to evenly distribute the surface-treated resin throughout the product. An identical surface-treating procedure is used for crosslinked homopolymers of acrylic acid and the crosslinked copolymers of acrylic acid with styrene, acrylamide or other ethylenically-unsaturated monomers by evenly spraying a methanol solution containing from about 0.1% to about 20% by weight of a polyquaternary amine over the powder until it is surface treated with from about 0.1% to about 5% of the polyquaternary amine by dry weight.

A water absorbant resin ("Anderson resin") was obtained using N,N-dimethlaminoethylacrylatemethylchloride quaternary salt as the polyquaternary amine mentioned in the above-shown example. Under a pressure of 1.9 kPa, the absorption

capacity ("AAP value") of the Anderson resin was subsequently tested. The testing procedure is identical to that used in Example 1 of the present application. In that example, the AAP values of twelve resins were obtained.

From the results of this test, the AAP value of the Anderson resin was determined to be 14 g/g.

4. All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully Submitted,

Date: October 14, 2008

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